

05-10-04



Docket No.: 384848011US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Peng et al.

Application No.: 10/765,802

Confirmation No.: 2492

Filed: January 26, 2004

Art Unit: 2818

For: HIGH DENSITY SEMICONDUCTOR
MEMORY CELL AND MEMORY ARRAY
USING A SINGLE TRANSISTOR AND
HAVING VARIABLE GATE OXIDE
BREAKDOWN

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A summary/abstract translation of the non-English language references is enclosed.

A copy of only those references listed below is attached:

For. Doc No.	Ctry	Patentee/Applicant	Publication Date
61292295	JP	Fujitsu Ltd.	December 23, 1986
0 295 935	EP	Advanced Micro Devices,	December 21, 1988

Other Documents
WU, E.W. et al; Voltage-Dependent Voltage-Acceleration of Oxide
SUNE, JORDI et al; Post Soft Breakdown Conduction in SiO ₂ Gate
DeGRAAF, C., et al, A Novel High-Density Low-Cost Diode
RASRAS, MAHMOUD et al; Substrate Hole Current Origin After Oxide
LOMBARDO, S. et al; Softening of Breakdown in Ultra-Thin Gate Oxide
MIRANDA, ENRIQUE et al; Analytic Modeling of Leakage Current

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-0665, under Order No. 384848011US.

Dated: 5/7/04

Respectfully submitted,

By 

Chun M. Ng

Registration No.: 36,878

PERKINS COIE LLP

P.O. Box 1247

Seattle, Washington 98111-1247

(206) 359-8000

(206) 359-7198 (Fax)

Attorney for Applicant



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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/765,802-Conf. #2492
				Filing Date	January 26, 2004
				First Named Inventor	Jack Z. Peng
				Art Unit	2818
				Examiner Name	Not Yet Assigned
Sheet	1	of	3	Attorney Docket Number	384848011US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US-3,634,929	01-18-1972	YOSHIDA ET AL.	
		US-4,322,822	03-30-1982	ROGER KING MC PHERSON	
		US-4,488,262	12-11-1984	DOMINIQUE BASIRE	
		US-4,490,900	01-01-1985	TE-LONG CHIU	
		US-4,502,208	03-05-1985	ROGER K. MC PHERSON	
		US-4,507,757	03-26-1985	DAVID J. MC ELROY	
		US-4,543,594	09-24-1985	AMR M. MOHSEN	
		US-4,546,273	10-08-1985	FAZIL I. OSMAN	
		US-4,599,705	07-08-1986	SCOTT HOLMBERG	
		US-4,613,886	09-23-1986	RONALD J. C. CHWANG	
		US-4,677,742	07-07-1987	ROBERT R. JOHNSON	
		US-4,794,562	12-27-1988	HIDEO KATO	
		US-4,823,181	04-18-1989	AMR M. MOHSEN	
		US-4,876,220	10-24-1989	AMR M. MOHSEN	
		US-4,899,205	02-06-1990	ESMAT Z. HAMDY	
		US-4,943,538	07-24-1990	AMR M. MOHSEN	
		US-4,962,342	10-09-1990	CARVER A. MEAD	
		US-5,138,410	08-11-1992	MASATAKA TAKEBUCHI	
		US-5,150,179	09-22-1992	MANZUR GILL	
		US-5,303,185	04-12-1994	EMANUEL HAZANI	
		US-5,304,871	04-19-1994	KUTHANUR R. DHARMARAJAN	
		US-5,323,342	06-21-1994	TOSHIO WADA	
		US-5,412,244	05-02-1995	ESMAT Z. HAMDY	
		US-5,477,499	12-19-1995	MICHAEL A. VAN BUSKIRK	
		US-5,496,756	03-05-1996	UMESH SHARMA	
		US-5,576,568	11-19-1996	VIKRAM KOWSHIK	
		US-5,578,848	11-26-1996	DIM-LEE KWONG	
		US-5,586,270	12-17-1996	MICHAEL J. ROTIER	
		US-5,587,603	12-24-1996	VIKRAM KOWSHIK	
		US-5,600,265	02-04-1997	ABBAS EL GAMAL	
		US-5,675,541	10-07-1997	BENOIT LETERRIER	
		US-5,675,547	10-07-1997	SHINICHI KOGA	
		US-5,745,417	04-28-1998	SHINICHI KOBAYASHI	
		US-5,825,200	10-20-1998	PAIGE A. KOLZE	
		US-5,825,201	10-20-1998	PAIGE A. KOLZE	
		US-5,880,512	03-09-1999	KATHRYN E. GORDON	
		US-5,909,049	06-01-1999	JOHN L. MCCOLLUM	
		US-5,986,931	11-16-1999	JOHN M. CAYWOOD	
		US-5,986,939	11-16-1999	KOUICHI YAMADA	
		US-6,016,268	01-18-2000	EUGENE ROBERT WORLEY	
		US-6,031,761	02-29-2000	ANDREA GHILARDELLI	
		US-6,034,893	03-07-2000	SUNIL D. MEHTA	
		US-6,040,968	03-21-2000	CHARVAKA DUVVURY	
		US-6,064,595	05-16-2000	STEWART G. LOGIE	
		US-6,084,428	07-04-2000	PAIGE A. KOLZE	
		US-6,097,077	08-01-2000	KATHRYN E. GORDON	

Examiner Signature		Date Considered	
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Substitute for form 1449A/B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/765,802-Conf. #2492
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				First Named Inventor	Jack Z. Peng
				Art Unit	2818
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	384848011US

	US-6,157,568	12-05-2000	CHRISTOPHER O. SCHMIDT	
	US-6,166,954	12-26-2000	GEEING-CHUAN CHERN	
	US-6,214,666	04-10-2001	SUNIL D. MEHTA	
	US-6,215,140	04-10-2001	HANS REISINGER	
	US-6,218,274	04-17-2001	HIROSHI KOMATSU	
	US-6,232,631	05-15-2001	CHRISTOPHER O. SCHMIDT	
	US-6,249,809	06-19-2001	WILLIAM L. BRO	
	US-6,282,123	08-28-2001	SUNIL D. MEHTA	
	US-6,294,809	09-25-2001	STEWART G. LOGIE	
	US-6,297,103	10-02-2001	KIE AHN	
	US-6,304,666	10-16-2001	WILLIAM L. WARREN	
	US-6,351,428	01-10-2002	LEONARD FORBES	
	US-6,421,293	03-07-2002	PHILIPPE CANDELIER	
	US-6,431,456	08-13-2002	HIROTAKA NISHIZAWA	
	US-6,456,535	09-24-2002	LEONARD FORBES	
	US-6,556,481	04-29-2003	FU-CHANG HSU	
	US-2001/0003374	06-14-2001	Marcel Bohmer	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY			
		JP-61292295	12-23-1986	Fujitsu Ltd.		
		EP-0 295 935	12-21-1988	Advanced Micro Devices, Inc.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **CITE NO.: Those patent(s) or publication(s) which are marked with an double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ²
		WU, E.W. et al; Voltage-Dependent Voltage-Acceleration of Oxide Breakdown for Ultra-Thin Oxides; IEEE, 2000.				
		SUNE, JORDI et al; Post Soft Breakdown Conduction in SiO2 Gate Oxides; IEEE, 2000.				
		DeGRAAF, C., et al, A Novel High-Density Low-Cost Diode Programmable Read Only Memory, IEEE, 1996.				
		RASRAS, MAHMOUD et al; Substrate Hole Current Origin After Oxide Breakdown; IEEE, 2000.				
		LOMBARDO, S. et al; Softening of Breakdown in Ultra-Thin Gate Oxide nMOSFET's at Low Inversion Layer Density; 39th Annual International Reliability Physics Symposium; Orlando, FL 2001.				

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		MIRANDA, ENRIQUE et al; Analytic Modeling of Leakage Current Through Multiple Breakdown Paths in SiO ₂ Films; 39th Annual International Reliability Physics Symposium; Orlando, FL 2001.	

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¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

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